

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Promoting Efficient Use of Spectrum Through)	WT Docket No. 00-230
Elimination of Barriers to the Development of)	
Secondary Markets)	
)	

THIRD REPORT AND ORDER

Adopted: April 6, 2007

Released: April 11, 2007

By the Commission:

I. INTRODUCTION

1. In the *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking (Second Report and Order, Order on Recon, and Second Further Notice, respectively)*, the Commission took additional steps to facilitate the development of secondary markets in spectrum usage rights involving Wireless Radio Services.¹ In the *Second Further Notice*, the Commission requested comment generally on additional ways in which licensees and spectrum lessees could enter into arrangements employing advanced technologies that enabled more opportunistic use of licensed wireless spectrum. It also specifically sought comment on the “private commons” option that it adopted in the *Second Report and Order*.²

2. Three parties submitted comments in response to the *Second Further Notice*.³ As discussed below, we affirm the Commission’s policies and rules regarding private commons arrangements. We decline at this time to adopt additional technical requirements regarding devices that might be used within a private commons, determining that such requirements are both premature and unnecessary. In addition, we determine that the proposal for licensing underutilized spectrum to equipment manufacturers for development of private commons is beyond the scope of this proceeding.

II. THIRD REPORT AND ORDER

A. Background

3. In adopting the *Second Report and Order*, the Commission established additional policies

¹ See generally *Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, 19 FCC Rcd 17503 (2004) (*Second Report and Order, Order on Recon, and Second Further Notice, respectively*).

² *Second Further Notice*, 19 FCC Rcd at 17574-76 ¶¶ 159-165.

³ See Comments of Cingular Wireless LLC (“Cingular Wireless Comments”); Comments and Reply Comments of CTIA – The Wireless Association (“CTIA Comments” and “CTIA Reply Comments,” respectively); Comments of Gateway Communications, Inc. (“Gateway Comments”).

intended to facilitate the use of advanced technologies, including “smart” or “opportunistic” devices, which have the potential to increase access and use of unused licensed spectrum.⁴ First, the Commission clarified that its spectrum leasing rules permit “dynamic” spectrum leasing arrangements, whereby licensees and spectrum lessees may enter into more than one spectrum leasing arrangement involving the shared use of the same spectrum.⁵ Second, the Commission expanded the spectrum licensing framework to include a new “private commons” option. This latter option was intended as a means of allowing a licensee or spectrum lessee to make spectrum available to individual users or groups of users that do not fit squarely within the existing spectrum leasing framework or within the traditional end-user arrangements associated with the licensee’s or lessee’s network infrastructure.⁶ The Commission stated that it sought to provide for opportunistic uses of spectrum pursuant to the terms and conditions that licensees (and spectrum lessees) set “so long as they fall within the licensee’s spectrum usage rights and are not inconsistent with applicable technical and other regulations imposed by the Commission to prevent harmful interference to other licensees.”⁷

4. As explained in the *Second Report and Order*, through establishment of a private commons a licensee (or spectrum lessee) may permit peer-to-peer communications by other users employing devices in a non-hierarchical network arrangement that does not utilize the licensee’s (or spectrum lessee’s) network infrastructure. The licensee (or lessee) authorizes other users to operate on the licensed frequencies employing particular devices that meet technical parameters specified by the licensee (or lessee). The technical parameters for these devices, in turn, enable users to operate in a manner designed to minimize interference concerns relating to other users in the licensed band.⁸ The use of these devices must comply with the applicable technical requirements and use restrictions under the license authorization itself,⁹ which includes all applicable requirements under the license authorization relating to prevention of interference with users outside of the licensed area. The Commission stated that the licensee (or lessee) must retain both *de facto* control of the use of the spectrum within the private commons and “direct responsibility” for the users’ compliance with the Commission’s rules.¹⁰ Further, as manager of the private commons, the licensee (or lessee) is required to notify the Commission about the private commons, and particular features associated with it, prior to permitting users to operate.¹¹ Requirements pertaining to private commons arrangements are set forth in Section 1.9080 of the Commission’s rules.¹²

B. Discussion

1. Requirements Pertaining to Private Commons Arrangements

5. In response to the *Second Further Notice*, both Cingular Wireless and CTIA request that the Commission clarify certain aspects of the requirements pertaining to the licensee’s or spectrum

⁴ See *Second Report and Order*, 19 FCC Rcd at 17545-54 ¶¶ 85-99.

⁵ *Id.* at 17546-48 ¶¶ 88-90.

⁶ See *id.* at 17549-54 ¶¶ 91-99.

⁷ *Id.* at 17546 ¶ 86.

⁸ *Id.* at 17550 ¶ 93.

⁹ *Id.* at 17549-50 ¶ 92.

¹⁰ *Id.* at 17550-51 ¶ 94 & n.251.

¹¹ *Id.* at 17550-51 ¶ 94.

¹² 47 C.F.R. § 1.9080.

lessee's responsibility, as manager of the private commons, to ensure that users and devices used in a private commons arrangement comply with applicable Commission rules.¹³

6. Cingular Wireless agrees with the Commission's *Second Report and Order* regarding the requirement that the licensee (or spectrum lessee), as manager of the private commons, should exercise *de facto* control on the use of the spectrum. However, noting that the Commission stated that the licensee (or spectrum lessee) was "directly responsible" for ensuring that users and equipment in the private commons complied with applicable rules, Cingular Wireless also seeks additional clarification regarding the circumstances under which the Commission would hold, and would not hold, the licensee (or lessee) responsible for such users' interference in geographic areas outside of the private commons, in which they were not authorized to operate.¹⁴ Finally, noting that the Commission sought comment in the *Second Further Notice* on whether it might be necessary that smart devices used in the private commons include technologies enabling the private commons managers to shut down the devices if they were causing harmful interference, Cingular Wireless argues that, although such a requirement "may be beneficial, and indeed necessary," it would be premature at this time.¹⁵

7. CTIA, in turn, urges the Commission to adopt more detailed technical standards concerning private commons arrangements in order to ensure that operations under the private commons model would be limited to services within the geographic area of the license, and effectively are restricted from migrating into, and causing interference within, geographic areas licensed to non-participating licensees. Specifically, to ensure that a private commons device cannot be used outside of the licensed spectrum and geographic area of the licensee (or lessee) authorizing the use of its spectrum, CTIA recommends adoption of strict rules and suggests that any private commons device should contain an element of positive control, in the form of technical intelligence, that prevents it from operating in unauthorized spectrum or areas.¹⁶

8. We determine that the requirements set forth in the *Second Report and Order* and codified in our rules provide the right balance at this time in encouraging the development of devices for operation within a private commons arrangement while at the same time placing the appropriate degree of responsibility on licensees (or spectrum lessees) to ensure that the users and devices do not cause harmful interference in areas outside of the private commons and the license authorization. Accordingly, we affirm the general policies and rules the Commission adopted for private commons, including the requirement that licensees (or spectrum lessees) retain both *de facto* control over use of the spectrum and direct responsibility for ensuring that users and the devices used within the private commons comply with the Commission technical and services rules under the license authorization, including those relating to interference.¹⁷ Because the licensees (or lessees) themselves, in their capacity as managers of private commons, exercise control under the license authorization and are responsible for establishing the technical parameters of the devices that would be used within the private commons, they must exercise their responsibilities so as to ensure compliance with the rules. They bear direct responsibility for

¹³ See Cingular Wireless Comments; CTIA Comments and Reply Comments. Both Cingular Wireless and CTIA expressed support for the Commission's clarification, in the *Second Report and Order*, that dynamic spectrum leasing arrangements were permissible, noting that this expanded opportunities for use of the spectrum. Cingular Wireless Comments at 2-3; CTIA Comments at 1-3.

¹⁴ Cingular Wireless Comments at 4-5. For instance, in the case of mobile opportunistic devices, Cingular Wireless argues that the Commission should evaluate a licensee's (or lessee's) compliance with its responsibilities based on the terms and conditions it establishes for operation within the private commons, and that non-compliance with these provisions should not result in liability to the licensee (or lessee). *Id.* at 4.

¹⁵ Cingular Wireless Comments at 5-6.

¹⁶ CTIA Comments at 3-5 and Reply Comments at 4.

¹⁷ *Second Report and Order*, 19 FCC Rcd at 17550-51 ¶ 94; 47 C.F.R. §§ 1.9080(b)(2)-(3).

establishing parameters of use that prevent harmful interference beyond the private commons areas and the boundaries of their licenses.

9. Based on the scant record before us and the wide variety of ways in which a private commons could be implemented, we decline to modify our rules at this time to further detail the responsibilities placed on the managers of private commons. We are in no position, based on what is before us, to make any determination by rule, as Cingular Wireless requests, as to whether a particular mechanism may or may not be sufficient for a licensee (or spectrum lessee) to exercise its responsibilities in a given instance. Nor do we conclude that establishing strict technical rules or requirements, as requested by CTIA, is appropriate. We do not want to limit at this time the various means by which a licensee (or lessee) might fulfill its obligations as manager of a private commons. A “shut down” mechanism, or positive control capabilities associated with private commons devices, may be effective means for ensuring that a licensee (or lessee) exercises *de facto* control over the use of the spectrum and ensures compliance with the Commission’s rules under the license authorization. They are not, however, the only conceivable means, and we see no need at this time to limit other possible means that might be consistent with the framework that Commission has established with regard to private commons.

2. Initial Licensing of “Underutilized” Spectrum for Private Commons

10. Gateway proposes that the Commission go beyond its secondary markets mechanisms and allow equipment manufacturers to file applications for authority to manage private commons using licensed spectrum in geographic areas where there has been a “market failure” and spectrum is “unwanted” or “underutilized.” It cites, as examples, instances in which the spectrum never was initially licensed (for failure of a successful bidder at auction) or where the license has been returned to the Commission.¹⁸ Gateway suggests that the Commission could issue licenses to equipment manufacturers in exchange for a reasonable one-time payment to the United States treasury, or for a modest spectrum use fee payable on an annual basis to the Commission, or even at no charge,¹⁹ but does not suggest how the Commission would decide among competing parties who might seek to obtain any such license.²⁰ Gateway asserts that this new licensing mechanism of offering spectrum to equipment manufacturers would create new opportunities for small businesses and others to obtain access to spectrum for a variety of niche uses and services.²¹

11. In reply comments, CTIA asserts that the Commission should reject Gateway’s proposal. CTIA contends that the proposal falls far outside of the scope of the Commission’s *Second Further Notice*, asserting that the notice only sought comment on the use of opportunistic devices in licensed spectrum and did not seek comment on new ways to give an interested party an initial spectrum license for a private commons. Accordingly, CTIA claims that the Commission cannot consider Gateway’s proposal in this proceeding because doing so would violate the requirement for adequate notice under the Administrative Procedures Act (APA).²² CTIA also argues that the proposal would create a new licensing scheme that would violate the requirements under Section 309(j) of the Communications Act, as amended, which requires that the spectrum be subject to competitive bidding.²³

¹⁸ Gateway Comments at 1, 4.

¹⁹ *Id.* at 1, 7.

²⁰ *Id.* at 7-8.

²¹ *Id.* at 2-8.

²² CTIA Reply Comments at 1-2 (Gateway’s recommended action does not constitute a “logical outgrowth” the *Second Further Notice*, and thus would not be in accordance with APA requirements).

²³ *Id.*

12. We agree with CTIA that Gateway's proposal clearly falls beyond the scope of the *Second Further Notice*. Although the *Second Further Notice* seeks comment on additional means to increase spectrum access through opportunistic uses of spectrum, it specifically sought comment within the context of the Commission's spectrum leasing policies and rules set forth in the proceeding addressing the development of secondary markets.²⁴ The brief, narrowly-focused *Second Further Notice* did not contemplate revising the Commission's initial licensing rules.²⁵ Although we are pleased that Gateway, as an equipment manufacturer, sees new opportunities for use of spectrum through private commons arrangements, we note these opportunities also exist within the private commons framework that the Commission has established in the *Second Report and Order*. Because Gateway's proposal is outside the scope of the *Second Further Notice*, and not a logical outgrowth of it, we will not address it in this proceeding.²⁶

III. ORDERING CLAUSES

13. Pursuant to sections 1, 4(i), 301, 303(r), and 503 of the Communications Act, as amended, 47 U.S.C. §§ 151, 154(i), 301, 303(r), and 503, IT IS ORDERED THAT this Third Report and Order is adopted.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

²⁴ *Second Further Notice*, 19 FCC Rcd 17575 at ¶¶ 160-61.

²⁵ *Id.* at 17574-76 ¶¶ 159-65.

²⁶ See 5 U.S.C. § 553(b) (APA requirements relating to notice); *Northeast Maryland Waste Disposal Authority v. EPA*, 358 F.3d 936, 951-52 (D.C. Cir. 2004) (discussing APA notice requirements and the "logical outgrowth" test).